Abstract ID : **10**

A web portal for hydrodynamical, cosmological simulations

Content

I will describes a new data center hosting a web portal for accessing and sharing the output of large, cosmological, hydro-dynamical simulations with a broad scientific community hosted at LRZ. It also allows users to receive related scientific data products by directly processing the raw simulation data on a remote computing cluster.
The data center has a multi-layer structure: a web portal, a job control layer, a computing cluster and a HPC storage system. The outer layer enables users to choose an object from the simulations. Objects can be selected by visually inspecting 2D maps of the simulation data, by performing highly compounded and elaborated queries or graphically by plotting arbitrary combinations of properties. The user can run analysis tools on a chosen object. These services allow users to run analysis tools on the raw simulation data. The job control layer is responsible for handling and performing the analysis jobs, which are executed on a computing cluster. The innermost layer is formed by a HPC storage system which hosts the large, raw simulation data.

Preferred talk time

9:00-11:00 (CET)

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Track Classification: Applications; Data Curation and Preservation; Knowledge Discovery in Databases; Theory

Submitted by **DOLAG, Klaus** on **Monday 03 May 2021**